



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

APR 26 2018

002884

D350-607-431
Job Sheet 176132



Part No: D350-607-431

Job Qty: 2 ea

Part Name: AS350/AS355 Quick Release Basket Strut Retrofit



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/17/18

Job Tracking No:

Due Date: 5/4/18

Created By: Linda Lacelle

Type: SOLD

Description:

Note: DWG REV E IPP REV:A 13.12.30 NEW ISSUE DD VERF: RQ IPP REV:B 14.02.03 D350-607-4 REV:C DD VERF:JLM IPP REV:C 14.06.10 AS PER ECN14-572 DD VERF:JLM

Ship Via:

DAS
TO
9-89
Choo3

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea	5/4/18	5/4/18	0.00	0.00	Start Up Stores/Pkg-2		APR 26 2018
120	Packaging	2 pcs	5/4/18	5/4/18	0.00	0.00	Packaging1-3		MAY 08 2018
130	QC	2 pcs	5/4/18	5/4/18	0.00	0.00	QC4		MAY 08 2018
135	DC	2 pcs	5/4/18	5/4/18	0.00	0.00	DC		MAY 09 2017
140	Packaging	2 pcs	5/4/18	5/4/18	0.00	0.00	Packaging3-1		MAY 09 2017
150	QC21-FG	2 Ea	5/4/18	5/4/18	0.00	0.00	QC21		MAY 10 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
AN4-14A	Bolt	24 Ea (12 ea)	90-Start up Operation	5062375
AN4-42A	Bolt	8 Ea (4 ea)	90-Start up Operation	5059843
AN6-13A	Bolt	4 Ea (2 ea)	90-Start up Operation	5053948
D3501-1	Bushing	16 Ea (8 ea)	90-Start up Operation	5063072
D3910-5	Crosstube Lug	2 Ea (1 ea)	90-Start up Operation	5056818
D3910-7	Crosstube Lug	2 Ea (1 ea)	90-Start up Operation	5049100
D3984-030	Rubber Extrusion, Crosstube (\$ Per Foot)	4 Ea (2 ea)	90-Start up Operation	5059661
D4775-041	Strut Assembly	4 Ea (2 ea)	90-Start up Operation	5066862
D4776-3	Skidtube Clevis	4 Ea (2 ea)	90-Start up Operation	5069628
D4917-300	Placard, Max Load	2 Ea (1 ea)	90-Start up Operation	5040718
D4917-310	Placard, Max Load	2 Ea (1 ea)	90-Start up Operation	5040718
D4917-315	Placard, Max Load	2 Ea (1 ea)	90-Start up Operation	5037280
D4917-320	Placard, Max Load	2 Ea (1 ea)	90-Start up Operation	5044857
D4917-332	Placard, Max Load	2 Ea (1 ea)	90-Start up Operation	5037296
MS21042L4	Nut	32 Ea (16 ea)	90-Start up Operation	5054118
MS21042L6	Nut	4 Ea (2 ea)	90-Start up Operation	5034399
NAS1149F0432P	Washer	48 Ea (24 ea)	90-Start up Operation	5050055
NAS1149F0663P	Washer	8 Ea (4 ea)	90-Start up Operation	5051477

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____ Date : _____ St _____	DISPOSITION Rework ☐ Scrap ☐ Skid-tube ☐ Machining ☐ Thermoforming ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td colspan="2">Supplier ☐</td> <td></td> </tr> </table>			Cross tube ☐	Water Jet ☐	Engineering ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Supplier ☐																																																																																													
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Description Work Dart Aerospace Ltd. 1270 Aberdeen Street Cambridge, ON K6L 1K7 TEL: 613 632-5200 Email: sales@dartero.com www.dartaerospace.com Container No: S069420 Part: D350-607-431 Job No: 176132 Serial No/Batch: S069420 Revision: Inspector: Date: 05/08/18		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																																																									
Root Cause <table style="width: 100%;"> <tr> <td style="width: 15%;">Environment ☐</td> <td style="width: 15%;">No Re-verification ☐</td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td></td> <td></td> <td>Weld ☐</td> <td>Positioned Wrong ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td></td> <td></td> <td>Wrong Stock Pulled ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td></td> <td></td> <td>Out of Sequence ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> <td></td> <td></td> <td>Off-set ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td></td> <td></td> <td>Mislabeled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td></td> <td></td> <td>Fit/Function ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td></td> <td></td> <td>Misaligned/off center ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Finish ☐</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> <td>OTHER : _____</td> <td></td> <td></td> <td></td> <td></td> <td>Misread ☐</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Turning Sequence ☐</td> </tr> </table>				Environment ☐	No Re-verification ☐							Design ☐	Operator ☐							Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐					Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐			Weld ☐	Positioned Wrong ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐			Wrong Stock Pulled ☐	Outside Dimensions ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐			Out of Sequence ☐	Over/Under tolerance ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐			Off-set ☐	Part Incorrect ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐			Mislabeled ☐	Part Lost/Missing ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐			Fit/Function ☐	Part Moved ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐			Misaligned/off center ☐	Drawing ☐	Past Expiry Date ☐	Manufacturing Process ☐						Finish ☐	Misidentified ☐	Past Due ☐	OTHER : _____					Misread ☐								Turning Sequence ☐
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Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	AN4-14A	24	101	0
	AN4-42A	8	65	0
	AN6-13A	4	51	0
	D3501-1	16	62	0
	D3910-5	2	30	0
	D3910-7	2	41	0
	D3984	4	3	0
	D4775-041	4	4	0
	D4776-3	4	0	0
	D4917-300	2	22	0
	D4917-310	2	11	0
	D4917-315	2	10	0
	D4917-320	2	18	0
	D4917-332	2	6	0
	MS21042L4	32	3,205	0
	MS21042L6	4	376	0
	NAS1149F0432P	48	2,233	0
	NAS1149F0663P	8	983	0
Part Specifications				
Specifications could not be found.				

Plex 4/17/18 1:59 PM dart.lacelle.linda

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-607-3 Rev.D,
INSTALLATION INSTRUCTIONS D350-607-4 Rev. C AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-607 REV. 6
REF TCCA STC: SH94-14
REF FAA STC: SR00213NY
REF EASA STC: EASA.10016996
REF BRAZILIAN STC: 2007S03-03/-04/-05/-06

1.0 PURPOSE

This service instruction provides parts and instructions to facilitate installation of forward Basket Strut for customers that have purchased: D350-607-501 Conversion Kit @ CHG 004, D350-607-511 Quick Release Basket Mounting Kit @ CHG 004, D350-607-541 @ CHG 006, D350-607-543 @ CHG 007, D350-607-545 @ CHG 006, D350-607-547 @ CHG 007 Heli-Utility-Baskets as well as the D350-607-431 Strut Retrofit Kit and the D350-607-641 Long Cargo Tube @ CHG 001.

2.0 PARTS LIST:

Modify the quantities for D3910-5 and add D3910-7 as follows:

QTY -541	QTY -543	QTY -545	QTY -547	QTY -511	QTY -501	PART NUMBER	DESCRIPTION
X						D350-607-541	HELI-UTILITY-BASKET @ CHG 007 OR LATER
	X					D350-607-543	HELI-UTILITY-BASKET @ CHG 008 OR LATER
		X				D350-607-545	HELI-UTILITY-BASKET @ CHG 007 OR LATER
			X			D350-607-547	HELI-UTILITY-BASKET @ CHG 005 OR LATER
1	1	1	1	X		D350-607-511	QUICK RELEASE BASKET MOUNTING KIT @ CHG 005 OR LATER
					X	D350-607-501	CONVERSION KIT @ CHG 005 OR LATER
				1	1	D3910-5	X-TUBE LUG
				1	1	D3910-7	X-TUBE LUG

(ADD)

QTY -413	QTY -415	QTY -417	QTY -419	QTY -431	PART NUMBER	DESCRIPTION
X					D350-607-413	HEAVY DUTY LID KIT (LONG)
	X				D350-607-415	HEAVY DUTY LID KIT (SHORT)
		X			D350-607-417	LIGHTWEIGHT LID KIT (LONG)
			X		D350-607-419	LIGHTWEIGHT LID KIT (SHORT)
				X	D350-607-431	STRUT RETROFIT KIT @ CHG 005 OR LATER
				1	D3910-5	X-TUBE LUG
				1	D3910-7	X-TUBE LUG

(ADD)

QTY -641	QTY -611	QTY -511	QTY -431	PART NUMBER	DESCRIPTION
X				D350-607-641	QUICK RELEASE LONG CARGO TUBE
1	X			D350-607-611	LONG CARGO TUBE
1		X		D350-607-511	QUICK RELEASE BASKET MOUNTING KIT @ CHG 005 OR LATER
			X	D350-607-431	STRUT RETROFIT KIT @ CHG 005 OR LATER
		1	1	D3910-5	X-TUBE LUG
		1	1	D3910-7	X-TUBE LUG

(ADD)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 14.05.16
CERT. NO.: SH94-14
ISSUE NO.: 6

A	NEW ISSUE	AJS	14.05.16
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9699	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		LUG REPLACEMENT	NTS
DATE	14.05.16	COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

6.0 CONVERSION & OPTIONAL KITS PARTS LIST

QTY -413	QTY -415	QTY -417	QTY -419	QTY -431	PART NUMBER	DESCRIPTION
X					D350-607-413	HEAVY DUTY LID KIT (LONG)
	X				D350-607-415	HEAVY DUTY LID KIT (SHORT)
		X			D350-607-417	LIGHTWEIGHT LID KIT (LONG)
			X		D350-607-419	LIGHTWEIGHT LID KIT (SHORT)
				X	D350-607-431	STRUT RETROFIT KIT
1	1	1	1		D2530	HANDLE ASSEMBLY
2	2	2	2		D2535	SPRING
2	2	2	2		D2537	BUSHING
				8	D3501-1	BUSHING
				2	D3910-5	X-TUBE LUG
1					D3914-041	LONG BASKET LID ASSEMBLY
		1			D3915-041	LONG BASKET LID ASSEMBLY (LIGHTWEIGHT)
6	6	6	6		D3917-3	WASHER
1	1	1	1		D3953-9	GAS SPRING WASHER
				4	D3984-030	RUBBER EXTRUSION, X-TUBE
	1				D4018-041	SHORT BASKET LID ASSEMBLY
			1		D4019-041	SHORT BASKET LID ASSEMBLY (LIGHTWEIGHT)
1					D4086-200	PLACARD, MAX LOAD
1					D4086-210	PLACARD, MAX LOAD
		1			D4086-215	PLACARD, MAX LOAD
	1	1			D4086-220	PLACARD, MAX LOAD
	1		1		D4086-232	PLACARD, MAX LOAD
			1		D4086-243	PLACARD, MAX LOAD
				2	D4775-041	STRUT ASSEMBLY
				2	D4776-3	SKIDTUBE CLEVIS
1				1	D4917-300	PLACARD, MAX LOAD
1				1	D4917-310	PLACARD, MAX LOAD
		1		1	D4917-315	PLACARD, MAX LOAD
	1	1		1	D4917-320	PLACARD, MAX LOAD
	1		1	1	D4917-332	PLACARD, MAX LOAD
2	2				AN3-16A	BOLT
		2	2		AN3-20A	BOLT
3	3	3	3		AN4-12	BOLT (DRILLED)
				12	AN4-14A	BOLT
					AN4-22A	BOLT
				4	AN4-42A	BOLT
2	2				AN5-17A	BOLT
		2	2		AN5-21A	BOLT
				2	AN6-13A	BOLT
3	3	3	3		AN310-4	CASTELLATED NUT
2	2	2	2		AN310C4	CASTELLATED NUT
					AN970-4	WASHER
2	2	2	2		MS21042L3	NUT (OR MS21042-3)
2	2	2	2		MS21042L5	NUT (OR MS21042-5)
				16	MS21042L4	NUT (OR MS21042-4)
				2	MS21042L6	NUT (OR MS21042-6)
3	3	3	3		MS24665-151	COTTER PIN
2	2	2	2		MS24665-300	COTTER PIN
2	2	2	2		NAS1149C0432R	WASHER
6	6	6	6	24	NAS1149F0432P	WASHER
2	2	2	2		NAS1149F0563P	WASHER
				4	NAS1149F0663P	WASHER

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Revision: D

Date: 14.01.02

Change Record

PAGE 1 OF 1

Part Number: D350-607-431Description: STRUT RETROFIT[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																